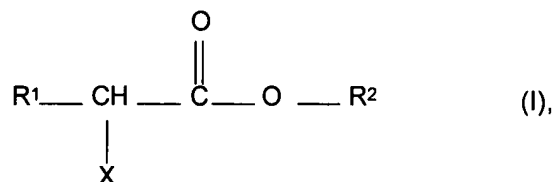


AMENDMENTS TO THE CLAIMS

We claim:

1. (Original) A process for preparing optically active 2-amino-, 2-chloro-, 2-hydroxy- or 2-alkoxy-1-alkanols by catalytically hydrogenating appropriate optically active 2-amino-, 2-chloro-, 2-hydroxy- and 2-alkoxycarboxylic acids or their acid derivatives, which comprises carrying out the hydrogenation in the presence of catalysts comprising palladium and rhenium or platinum and rhenium.

2. (Currently Amended) ~~A process as claimed in~~ The process according to claim 1, wherein optically active 2-amino-, 2-chloro-, 2-hydroxy- or 2-alkoxycarboxylic acids or their esters of the formula I



where the radicals are defined as follows:

R¹: straight-chain or branched C₁-C₁₂-alkyl, C₇-C₁₂-aralkyl or C₆-C₁₀-aryl, each of which may be substituted by NR³R⁴, OH, COOH and/or further groups stable under the reaction conditions,

R²: hydrogen, straight-chain or branched C₁-C₁₂-alkyl or C₃-C₈-cycloalkyl,

X: chlorine, NR⁵R⁶ or OR⁷,

R³, R⁴, R⁵ and R⁶:
each independently hydrogen, straight-chain or branched C₁-C₁₂-alkyl, C₇-C₁₂-aralkyl, C₆-C₁₀-aryl, C₃-C₈-cycloalkyl or C₃-C₈-cycloalkyl in which one CH₂ group is replaced by O or NR⁸,

R³ and R⁴ and also R⁵ and R⁶:
also each independently together -(CH₂)_m-, where m is an integer from 4 to 7,

R¹ and R⁵:
also together -(CH₂)_n- where n is an integer from 2 to 6,

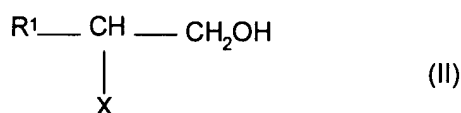
R^7 : hydrogen, straight-chain or branched C_1 - C_{12} -alkyl or C_3 - C_8 -cycloalkyl,

R^1 and R^7 :

also together $-(CH_2)_n-$, where n is an integer from 2 to 6 and

R^8 : hydrogen, straight-chain or branched C_1 - C_{12} -alkyl, C_7 - C_{12} -aralkyl or C_6 - C_{10} -aryl,

or their acid anhydrides are used and hydrogenated to the corresponding optically active alcohols of formula II



in which R^1 and X are each as defined above.

3. (Currently Amended) ~~A process as claimed in claims 1 and 2~~ The process according to claim 1, wherein the palladium/rhenium or platinum/rhenium catalysts comprise at least one element from the group of the elements titanium, vanadium, chromium, manganese, iron, cobalt, nickel, copper, zinc, zirconium, molybdenum, silver, tin, tungsten, lead, lanthanum and cerium.

4. (Currently Amended) ~~A process as claimed in claims 1 and 2~~ The process according to claim 1, wherein the palladium/rhenium or platinum/rhenium catalysts comprise at least one element from the group of the elements silver, molybdenum, tungsten and tin.

5. (Currently Amended) ~~A process as claimed in any of claims 1 to 4~~ The process according to claim 1, wherein the palladium/rhenium or platinum/rhenium catalysts are used unsupported or applied to a support.

6. (Currently Amended) ~~A process as claimed in any of claims 1 to 5~~ The process according to claim 1, wherein the weight ratio of the ~~elements~~ palladium or platinum to rhenium is from 100:1 to 0.01:1.

7. (Currently Amended) ~~A process as claimed in any of claims 1 to 6~~ The process according to claim 1, wherein the weight ratio of the ~~elements~~ palladium or platinum to rhenium is from 50:1 to 0.05:1.

8. (Currently Amended) ~~A process as claimed in any of claims 1 to 7~~ The process according to claim 3, wherein the weight ratio of the ~~elements~~ palladium or platinum to the at least one ~~further~~ element of the catalyst from the group of elements is from 100:1 to 10:1.

9. (Currently Amended) ~~A process as claimed in any of claims 1 to 8~~ The process according to claim 1, wherein the hydrogenation is carried out in the presence of an acid.

10. (Currently Amended) ~~A process as claimed in any of claims 1 to 9~~ The process according to claim 1, wherein the hydrogenation is carried out at a temperature of from 30° to 140° C.

11. (New) The process according to claim 2, wherein the compound of formula I is selected from the group consisting of phenylalanine, threonine, glutamic acid, proline, aspartic acid, alanine, ornithine, valine, leucine, isoleucine, tartaric acid, lactic acid, 2-chloropropionic acid, malic acid and the acid derivatives of each thereof.

12. (New) The process according to claim 4, wherein the weight ratio of the palladium or platinum to the at least one element from the group of elements is from 100:1 to 10:1.

13. (New) The process according to claim 4, wherein the hydrogenation is carried out in the presence of an acid and at a temperature of from 30° to 140° C.

14. (New) The process according to claim 13, wherein the 2-aminocarboxylic acids are selected from the group consisting of phenylalanine, threonine, glutamic acid, proline, aspartic acid, alanine, ornithine, valine, leucine, isoleucine, the 2-hydroxycarboxylic acids are selected from tartaric acid, lactic acid or malic acid, and the 2-chlorocarboxylic acid is 2-chloropropionic acid.

15. (New) The process according to claim 1, wherein the weight ratio of the palladium or platinum to rhenium is from 10:1 to 0.1:1.

16. (New) The process according to claim 4, wherein the weight ratio of the palladium or platinum to rhenium is from 10:1 to 0.1:1.

17. (New) A process for preparing optically active 2-amino-, 2-chloro-, 2-hydroxy- or 2-alkoxy-1-alkanols by catalytically hydrogenating appropriate optically active, 2-substituted-carboxylic acids selected from the group consisting of 2-amino-, 2-chloro-, 2-hydroxy- and 2-alkoxycarboxylic acids or the acid derivatives of each thereof, which comprises carrying out the hydrogenation in the presence of an unsupported bimetallic catalyst comprising palladium and rhenium or platinum and rhenium, wherein the catalysts are prepared from the mixtures of platinum oxide or palladium oxide, and rhenium oxide in the presence of a reducing agent.

18. (New) The process according to claim 17, wherein the 2-aminocarboxylic acids are selected from the group consisting of phenylalanine, threonine, glutamic acid, proline, aspartic acid, alanine, ornithine, valine, leucine, isoleucine, the 2-hydroxycarboxylic acids are selected from tartaric acid, lactic acid or malic acid, and the 2-chlorocarboxylic acid is 2-chloropropionic acid.